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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

16 August 1978

MEMORANDUM FOR: The Director of Central Intelligence
FROM : John N. McMahon
Deputy Director for Operations
SUBJECT : MILITARY THOUGHT (USSR): Certain Problems
of Medical Support of the Armed Forces
in Modern Warfare

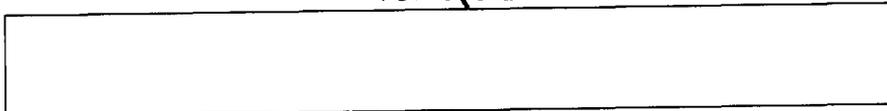
1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The authors discuss the changes in the structure, procedure, and mobility of the medical service that will be necessary in order to cope with the heavy losses resulting from the use of nuclear and other weapons of mass destruction in a modern war. They lay particular emphasis on the role of subunits and their commanders in providing emergency medical measures, and on the need for treatment in place of the wounded and sick. This article appeared in Issue No. 2 (72) for 1964.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned

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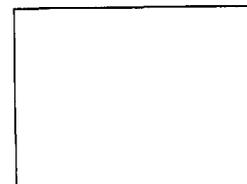
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Page 2 of 16 Pages

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Intelligence Information Special Report

Page 3 of 16 Pages

COUNTRYUSSR

DATE OF
INFO. Mid-1964

DATE
16 August 1978

SUBJECT

MILITARY THOUGHT (USSR): Certain Problems of Medical Support
of the Armed Forces in Modern Warfare

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 2 (72) for 1964 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The authors of this article are General-Leytenant of Medical Service D. Kuvshinskiy and General-Leytenant of Medical Service A. Georgiyevskiy. This article discuss the changes in the structure, procedure, and mobility of the medical service that will be necessary in order to cope with the heavy losses resulting from the use of nuclear and other weapons of mass destruction in a modern war. They lay particular emphasis on the role of subunits and their commanders in providing emergency medical measures, and on the need for treatment in place of the wounded and sick.

End of Summary

Comment:

The SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970.

. The article referred to is unavailable.

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Page 4 of 16 Pages

Certain Problems of Medical Support of the
Armed Forces in Modern Warfare

by

General-Leytenant of Medical Service D. KUVSHINSKIY
General-Leytenant of Medical Service A. GEORGIYEVSKIY

The decisive goals, broad scope, and great fluidity and mobility of combat actions, as well as the complexity of combat equipment based on the broad use of automated systems, radioelectronics, and remote control, require extreme exertion of moral and physical strength and a high level of technical training for all army and navy personnel. This is the reason for the complexity of training military specialists and the importance of keeping them in the armed forces, including those cases in which they are put out of action as a result of injury or illness.

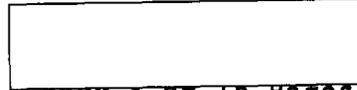
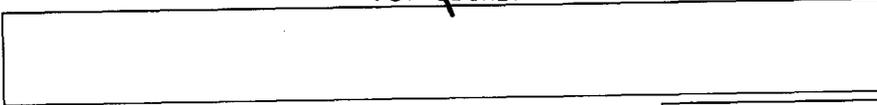
Soviet military doctrine recognizes that the nature of modern warfare requires the use of massed armed forces. At the same time, warfare also involves the most complete mobilization of the entire able-bodied population for use in industrial and agricultural production.

Thus, under conditions of modern warfare the problem of human resources becomes one of the most decisive in achieving victory over the enemy. At the same time, it is one of the most complex. Already during the Great Patriotic War, major difficulties were experienced in staffing an army in the field with personnel. In 1944, all reserves of men eligible to be called up were essentially exhausted. Great numbers of men in industrial and agricultural production had to be replaced by women and teenagers. According to data cited by D. OSTROVSKIY,* the number of women employed in industry as early as October 1941 had reached 45 percent of the total number of workers. In order to staff rear services units and facilities and a number of special technical units, the Soviet Army called up older men and those only partially fit for military service, as well as more than 530,000 women. Lastly, one of the most important ways of obtaining human resources to staff an army in the field with

* D. OSTROVSKIY. "Training Human Reserves in Modern Warfare,"
Military Thought, No. 1, 1958, page 22.

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Page 3 of 10 Pages

personnel was, as in previous wars, that of returning the wounded and sick to action after treatment and recovery.

Considerable research done both at home and abroad indicates that medical casualties in present-day operations will be several times greater than in operations during the Great Patriotic War. And the type of medical casualties will differ greatly from those of past wars. Whereas before, the great majority of casualties were caused by firearms, under conditions of a present-day war nuclear weapons will be the main cause and may account for 50 to 60 percent of the total number of medical casualties during an operation.

All this creates enormous difficulties in accomplishing the task of staffing the armed forces with personnel, and replacing losses in manpower sustained by troops from the effects of enemy weapons of mass destruction. For this reason, all-round medical support for the armed forces, designed to improve and maintain the health of personnel and return as many wounded and sick fighting men to duty as quickly as possible, takes on exceptionally great importance. In effect, medical support under conditions of modern warfare becomes a series of combat support measures, since the timeliness and thoroughness of medical measures determine the combat effectiveness of armed forces personnel and, consequently, their ability to perform the combat tasks assigned to them.

In principle, we may distinguish two basic types of medical support measures in accomplishing tasks of preserving the human resources of the armed forces. The first group comprises the system of prophylactic measures. Their purpose is to help build up the health of all personnel and, in a number of cases, substantially limit the destructive effect of enemy combat means. This may be achieved as follows: when the enemy uses bacteriological weapons, by a system of efficiently planned antiepidemic measures; when he uses chemical weapons, by specially treating personnel who are infected with toxic agents; in the event of ionizing radiation, by the use of radiation protection preparations.

The second group comprises the system of medical-evacuation measures. Their purpose is to ensure the replacement of losses of armed forces personnel by returning wounded and sick to action



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Page 6 of 16 Pages

as quickly as possible. The experience of the Great Patriotic War of 1941-1945 indicates that enormous reserves of personnel may be created by this method for purposes of staffing the armed forces. In a year of war, the medical service on the average returned to action enough wounded and sick who had recovered to staff many dozens of divisions.

Let us now examine the chief characteristics of a system of medical support for the armed forces under conditions of modern warfare and ways of improving it further.

Proper organization of a system of medical support for the armed forces under conditions of modern warfare is impossible without a clear determination of the tasks of the medical services and the content of its work in the event that centers of mass destruction should develop. One of the most important of these tasks is that of rescue operations in a center of destruction. It must be emphasized at the outset that in carrying out rescue operations, mass losses require as many simple and easily performed -- and at the same time effective -- methods and techniques of first aid as are possible. The most important of these are emergency medical measures, whose completeness and timeliness determine not only the success of subsequent treatment, but also the very life of the wounded or injured man.

A careful assessment of the capabilities of the medical service and its forces in relation to the volume of emergency measures which must be performed during rescue operations, leads to the inevitable conclusion that the medical service is not in a position to handle this work alone. The decisive role in eliminating the aftereffects of the development of centers of mass destruction must be played by the subunits assigned by the command to perform rescue operations. As for emergency medical assistance provided to the wounded and injured, it must be primarily in the form of self- and mutual assistance. It is, therefore, extremely important to train all armed forces personnel (officers, NCO's, and soldiers) in advance in methods of giving first aid in the event of injury from modern combat means, and in procedures for collecting and evacuating the wounded from centers of destruction.

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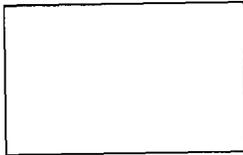
Page 7 of 16 Pages

The experience of all exercises with troops in which measures to eliminate the aftereffects of the development of centers of mass destruction were worked out, clearly demonstrates the importance of the organizing role of the commander in carrying out rescue operations. The commander of a subunit or unit which has been subjected to the effects of weapons of mass destruction must, after thoroughly assessing the situation that has developed following enemy missile/nuclear strikes or the use of chemical or bacteriological means of destruction, determine the content and volume of rescue measures, allocate the forces and means needed to carry them out, and organize, along with measures designed to restore the combat effectiveness of his subunit, the rescue of wounded men who are inside the area of destruction.

Consequently, rescue measures carried out in centers of mass destruction require the commander to have the same knowledge of how to organize them and the skills in carrying them out as he has of measures involved in performing the combat task. Unfortunately, we still have a long way to go in this direction. At field training periods and exercises for troops the organization of rescue operations in centers of destruction is often not touched upon at all, and in those cases where it is treated the organizers of the training period (exercise) permit an unjustified number of arbitrary situations and oversimplifications.

According to present views, rescue teams of a regiment (or division) must play the major role in carrying out rescue operations in centers of mass destruction. This approach to the organization of rescue operations appears to be the most realistic, and therefore should be retained in the future as well. But the experience of the exercise indicates that forming rescue teams, and especially equipping them with everything they need for rescue operations runs into major difficulties. Often a subunit assigned at an exercise to perform rescue operations reached the center of destruction ill-prepared and ill-equipped to perform this kind of work, or the formation of a rescue team took an unjustifiably long time.

This is why we believe that the basic nucleus of a rescue team must be a small organic subunit of a regiment (division) -- a rescue detachment. This subunit must include



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Page 8 of 16 Pages

chemical troop personnel, combat engineers, and medical personnel, and have the technical means and equipment necessary to ensure the performance of rescue operations in the center of destruction and to supply personnel allocated additionally from its line subunits (rear services facilities) to perform rescue operations. In this case, the development of organizational teamwork in a rescue team can be greatly speeded up, and its work can be better planned and be of higher quality than in the present situation. The troop commander (chief of the rear) of an army or front should also have such rescue detachments under his subordination, since the establishment of rescue teams for work in an army or front rear area by drawing on personnel from special units and rear services facilities located there runs into even greater difficulties than in troop large units.

Modern warfare requires that a system of medical support for the armed forces be of the utmost stability and flexibility. Now, to a much greater degree than was necessary in the past, a system of medical support for the armed forces must have the capability of quickly changing the content and volume of its medical-evacuation, sanitary-hygiene, and antiepidemic measures according to the situational conditions which may develop. At the same time, it is essential that this reorganization be interconnected at various levels of the medical service for the armed forces, and that it provide the capability for carrying out a series of prophylactic and medical procedures that will make it possible to achieve, under given specific conditions, the highest quality medical support for troops.

For example, a limitation or reduction in the volume of medical assistance at the tactical level of the medical service at regimental medical aid posts and in medical-sanitary battalions -- something that is inevitable in the event of massive losses in troop personnel -- must be compensated for without fail by an additional buildup of forces and means from the operational level of the medical service and a corresponding expansion in the volume of medical measures at hospital bases. The same interdependence is absolutely essential in the work of the operational level of the medical service and of means subordinate to the Center.

Flexibility and stability of a system of medical support for the armed forces may be ensured only by establishing a T/O&E for

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Page 9 of 16 Pages

the medical service which corresponds to the conditions of modern warfare, and by using forms and methods of medical support of combat actions which fully meet these conditions.

First of all, it is essential that the forces and means of the medical service intended for support of an army in the field possess a high degree of mobility and maneuverability. It was for this reason that as early as during the Great Patriotic War, and especially after it was over, mobile field hospitals began to be included in front means of the medical service, and subsequently the medical service for an army in the field was reorganized.

The establishment of new mobile field components -- separate medical detachments called upon to ensure close cooperation between the operational level of the medical service and its means located in troop large units -- as much as the removal of hospitals from the army level of the medical service and their concentration in front hospital bases, greatly increased the mobility and maneuverability of the medical service. For this same reason, the number of mobile field hospitals relative to the total numbers of medical facilities of an army in the field was increased substantially. At the present time at least 50 to 60 percent of the hospitals of the medical service of a front are mobile field hospitals.

Still, we must recognize the fact that further improvement in this direction is necessary in the T/O&E of the medical service of an army in the field. In our opinion, all medical facilities allotted to the medical service of an army in the field must now be highly mobile and have a complete set of portable equipment to carry out their work under field conditions. They must have a sufficient amount of organic motor transport for moving about and must be able to curtail or expand their work in the shortest possible time. These requirements are now being met by only a few separate medical detachments and mobile field hospitals, and even then not in full measure.

The absence at the present time in the T/O&E of enough transportation to relocate them in one trip obliges the medical service to seek additional transportation resources. When organizing a move of medical facilities, it is essential to be guided by the fact that, given the rate of development of modern

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Page 10 of 16 Pages

operations, we cannot tolerate the relocation of medical facilities by stages (two to three trips), as was widely practiced in the Great Patriotic War, since this method of relocation will result in their beginning work much later than what is required by the situational conditions of modern warfare.

Materials from operational-rear services exercises and military-medical games make it clear that during a modern front offensive operation, to move its facilities directly behind the advancing troops, the medical service requires a daily average of 200 to 250 vehicles in the three-ton range in addition to the organic transport that medical units and medical transport subunits normally have on hand. The medical service, therefore, is not in a position to accomplish the task of transporting medical facilities independently without the help of the chief of the rear and the command. It is essential that the transportation plan worked out by the rear staff and military transportation organs include the transportation of medical facilities as an essential component part. Unfortunately, this is far from being universally done.

Requiring particular attention is the transporting of medical facilities which reach an army in the field during an offensive operation. The experience of exercises, like the results of corresponding calculations carried out for purposes of scientific research, clearly shows that medical facilities which reach a front by rail during an offensive operation can be used to support the given operation (provided they are subsequently moved by motor transport) only if they are delivered to front regulating stations no later than the third or fourth day of the offensive. Otherwise, motor transport will be unable to deliver them in time to the new areas where forward hospital bases are deployed.

Consequently, for the timely movement of medical facilities, executed over a great distance and in an extremely short period of time -- particularly during an offensive operation -- it is extremely important that they be carried by military transport aviation. Research done on this matter has shown that during a front offensive operation, military transport aviation must carry up to 90 or 95 different types of medical facilities, mainly mobile field hospitals, and, in addition, up to 70 tons of medical supplies from the prescribed combat inventory. To

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Page 11 of 16 Pages

transport all these medical service means by air will require, for the entire period of the front offensive operation, up to 350 AN-12 aircraft or up to 470 MI-6 helicopters (on the assumption that each will make one flight).

Thus, the timeliness of the movement of medical facilities, particularly the concentration of the necessary medical evacuation means near the centers of mass destruction, cannot be ensured by the means and efforts of the medical service alone. The transportation of medical facilities must also be made the responsibility of motor transport units and military transport aviation. Only by so doing will the medical service, given the present speed of development of operations, keep pace with the troops and ensure the timely development of its means in new areas.

As the experience of medical support in past wars has shown, the timeliness with which the forces and means of the medical service are moved is greatly enhanced by the presence of a reserve of these means. The significance of this reserve was clearly demonstrated during the Great Patriotic War, especially in those cases where the need arose to provide medical support to an operation of a clearly mobile nature. During the last war the relative size of the reserve of the medical service became larger and larger, amounting in the final stage to 30 to 40 percent of all the forces and means of the medical service of an army or front.

Under conditions of modern warfare, the importance of the reserve of the medical service has increased even further. This is due primarily to the more rapid nature of combat actions, the much faster rate of development of operations than was the case in the past -- which sharply limits the possibility of freeing deployed medical facilities during a given operation -- and the much greater variation in medical casualties. Finally, the importance of the reserve is also increased because forces and means of the medical reserve itself are put out of action more often.

The experience of medical support for troops in past wars, especially in the Great Patriotic War, indicates that each chief of the medical service must have a reserve at his disposal. Here a reserve of forces and means at the army, and especially at the

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Page 12 of 16 Pages

front, level is of extremely great importance. This reserve may include separate medical detachments, various medical facilities -- primarily mobile field hospitals, ambulance subunits, antiepidemic facilities, and medical supplies. We should particularly stress the advisability of having special highly mobile formations in the reserve forces and means of the medical service, which would ensure the possibility of rapid maneuver during combat actions. At the present time, the medical service has various types of reinforcement groups which fully proved their worth in the last war, and which help to organize specialized medical facilities consisting of surgical or therapeutic mobile field hospitals.

But the state of modern warfare makes it necessary to have mobile means of medical reinforcement of another type. Their task must be to provide mass medical sorting of the wounded in the shortest possible time and to provide emergency skilled medical aid when a large number of centers of mass destruction develop. These may be separate groups or small mobile detachments of medical reinforcement which include primarily sorting, general surgery, and detoxification therapy groups.

At the present time this type of medical reinforcement means exists only in the medical service of an army in the form of an army reinforcement medical detachment. But this clearly does not meet the requirements for such means. It is obvious that the medical service of a front should have reinforcement medical detachments of this type. This would enable it to react more fully and efficiently to any changes in the situation resulting from the development of centers of mass destruction. By landing from aircraft (helicopters) in the immediate vicinity of centers of mass destruction, personnel of sorting, general surgery, and detoxification therapy groups (of mobile reinforcement medical detachments), using buildings that have remained intact, local means, and surviving medical aid posts (medical facilities), will be able to organize accommodations, medical sorting, and basic medical treatment of the wounded and injured, as well as give them emergency medical aid -- based on vital signs -- before front mobile hospitals arrive in the area.

Figuratively speaking, these mobile medical reinforcement components may be a kind of forward detachment of the medical service of a front, able to ensure the most favorable conditions

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Page 13 of 16 Pages

possible for assimilating medical facilities which arrive at a center of mass destruction, and allow the freeing of subunits of the field medical service as quickly as possible. They must play an extremely important role during a high-speed offensive by our troops and when medical facilities are a considerable distance away from the attack groupings owing to a limited amount of available means of the medical service and the absence of a sufficiently powerful reserve of mobile field hospitals, i.e., in the kind of situation that is typical of offensive operations in the initial period of a war.

It would be incorrect, however, to link the question of the reserve solely to the forces and means of the medical service of an army in the field. Even the experience of the last war clearly showed the exceptionally great importance of the reserve means of the medical service which were at the disposal of the Center. The absence of this reserve forced the command personnel of the medical service to resort, when preparing large operations on a strategic scale, to the so-called inter-front transfer of medical facilities. This maneuver proved to be of little effect, since it could not be accomplished even within the fairly lengthy preparatory period of strategic operations.

This is why one of the most important lessons of medical support for the Armed Forces in the Great Patriotic War was the need to have a sufficiently powerful reserve at the Center.

The reserve of means of the medical service of central subordination must be the basic means in a maneuver being carried out by the Center to support the medical service of an army in the field on the most important strategic axes. In the process, depending on the specific situation, it may be dispersed along the front and in the depth and may be located both on the territory of the rear of fronts operating on a given strategic axis, and in the interior of the country. This way the most favorable conditions are achieved for organizing cooperation between medical service means subordinate to the Center and means which are part of an army in the field and of various branches of the armed forces. This cooperation may be organized in the form of joint activity by hospital bases of fronts (fleets) deployed on the main strategic axes with hospital bases in the interior of the country. It may also require moving up reserves of central subordination to the front rear and to areas of deployment of

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Page 14 of 16 Pages

large units (formations) of strategic rocket forces, Air Defense Forces of the Country, and air forces and naval forces, with the subsequent transfer of the medical service to the operational subordination of the appropriate commander.

To achieve a purposeful maneuver by forces and means of the medical service of an army in the field, front means in turn are moved up into the army rear, while army means are moved into the tactical rear. A kind of systematic buildup of forces and means from the depth takes place, which enables the medical service to perform its tasks without interruption and in good time, and also to react flexibly to any changes in the situation. This is the meaning of the so-called "maneuver from the depth," which is of particularly great importance under present-day operational conditions.

The question of the place of evacuation and medical measures in a modern system of medical support of troops deserves particular attention. In the past, systematic mass evacuation of wounded and sick was always considered one of the most important elements in this system. Specifically, it was considered absolutely unavoidable and necessary to evacuate a large portion of the wounded and sick from hospital bases of an army in the field to hospitals in the interior of the country. During the Great Patriotic War, this group of evacuated men constituted 40 to 50 percent of the total number of those treated in medical facilities of an army in the field. The evacuation of wounded and sick in the initial period of the last war was even more intensive. For example, during the period in which our troops were withdrawing, on the Western Front up to 70 percent of all the wounded and sick were evacuated to the deep interior area of the country, while on the Southwestern Front, about 60 percent.

Under conditions of modern warfare, the place of evacuation in the complex of medical-evacuation measures has changed considerably.

As a result, the system of medical support for the armed forces is now based on the principle of "treatment in place" of the wounded and sick within the hospital bases of an army in the field. Furthermore, wherever possible, and especially during an offensive that is proceeding satisfactorily, front medical facilities should be moved up to the lines where mass medical

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Page 15 of 16 Pages

casualties occur. Hospital bases deployed as close as possible to centers of mass destruction will be able, as a result, to provide exhaustive medical aid to the wounded and injured as well as subsequent treatment. Thus medical treatment administered in stages -- one of the greatest shortcomings in the treatment of the wounded during the Great Patriotic War -- is eliminated.

This, of course, does not mean that evacuation has now been generally eliminated from the complex of medical-evacuation measures, or that the moving of medical facilities up to the lines of mass losses will under conditions of modern warfare be the only type of maneuver made by the forces and means of the medical service. After all, the evacuation of the wounded and sick is, as the experience of past wars shows, not only a component part of the system of medical-evacuation support for troops, but is also one type of maneuver by forces and means of the medical service which contributes to the flexibility and stability of this system.

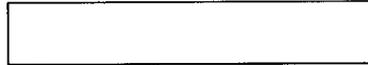
From the above it is clear that a modern system of medical support for troops is a combination of "treatment in place" -- within the hospital network of an army in the field -- of the bulk of the wounded and sick, and the evacuation of a certain percentage of them within the front and beyond it. The evacuation maneuver is used rather extensively in those cases where, owing to the situational conditions, it does not appear possible to move medical facilities up to the centers of destruction or to the lines of mass medical casualties.

In conclusion, we should point out one decisive condition which is essential to the successful accomplishment of the tasks of medical support of troops in a modern warfare situation. The extraordinary fluidity and variability of the situation requires the appropriate chiefs of the medical service to be aware of all changes as quickly as possible and to have available the necessary (high-speed) communications means needed to contact the medical subunits and facilities subordinate to them. Only by so doing can we count on the timely deployment of forces and means of the medical service and their participation in measures to eliminate the aftereffects of enemy missile/nuclear strikes.

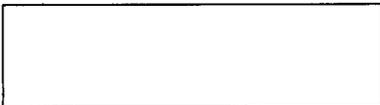
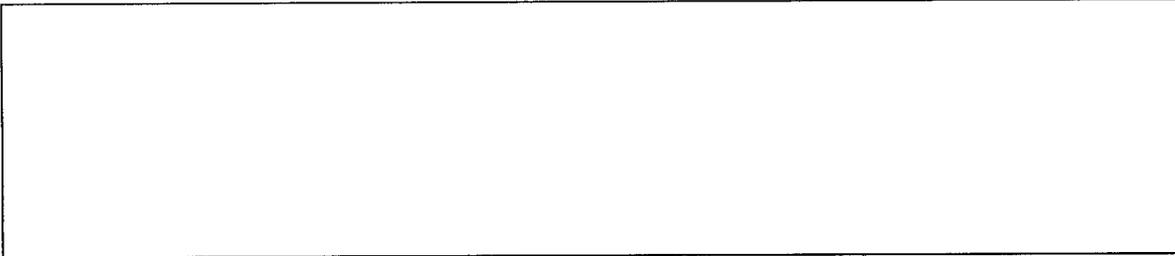
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Page 16 of 16 Pages



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